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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/063,333	04/20/1998	MICHAEL D. ELLIS	UV-44	4270

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EXAMINER	
BROWN, RUEBEN M	

ART UNIT	PAPER NUMBER
2611	14

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/063,333	ELLIS ET AL.	
	Examiner	Art Unit	
	Reuben M. Brown	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22,29-58,65-76 and 78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22,29-58,65-76 and 78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/25/2003 has been entered.

Response to Arguments

2. Applicant's arguments filed 8/25/03 have been fully considered, but they are not persuasive. On page 30, applicant argues that Hawkins does not teach the claimed feature of "receiving information from a remote source on the amount of memory for the interactive TV program guide to use to store the program guide data". Applicant goes on to characterize the sample statistics shown in Fig. 6 & Fig. 8 and discussed in col. 17, lines 37-38. In particular, applicant states, "These statistics are merely used to demonstrate the capabilities of Hawkins' user terminal, i.e. they describe the terminal. The statistics are information provided to the terminal...".

Examiner respectfully disagrees with applicant's characterization of Hawkins. First of all, applicant is directed to col. 13, lines 1-20, wherein Hawkins specifically refers to basic service interfaces such as VOD interface, Pa-Per-View interface and EPG interface. Secondly, Hawkins discloses, "Fig. 6 shows the number of media objects required for interfaces to basic services and for additional services, and the amount of storage required by all media objects... The EPG requires one code module, one background photo, one piece of animation, one thousand text objects, etc." Without question then, Fig. 6 refers to the memory requirements for various services, including an EPG and this information is transmitted from the headend; see col. 12, lines 66-67 thru col. 13, lines 1-2 and col. 13, lines 25-28.

Furthermore, as for the disclosure found in col. 17, lines 37-38 of Hawkins, cited by applicant, it is also clear that the requirements refer to user interfaces, i.e. EPG and other services. "Fig. 8 shows the size requirements, overall bandwidth requirements, and transmission time for each user interface...". Moreover, Hawkins discloses that for instance, the total memory required to store searchable, weekly EPG is 3.7 Megabytes, col. 19, lines 42-46.

Moreover according to Hawkins, the purpose of transmitting information regarding the size of the IPG is that if the size of the IPG goes beyond the storage capacity of the STB, then alternative arrangements must be utilized to store the IPG, (col. 19, lines 44-54), which reads on the additionally claimed feature of 'adjusting the amount of memory used to store the IPG in response to the received information'. Furthermore, Hawkins discusses several different

algorithms, which uses various amounts of the required storage capacity for the downloaded IPG; see col. 19, lines 51-67 & col. 20, lines 1-34.

On page 29, applicant sets forth that it is believed that the examiner agreed that Hawkins fails to show or suggest receiving information and adjusting the amount of memory in response to the received information. As discussed above, Hawkins gives an example wherein 3.7 MB are needed to store a particular version of the EPG. Clearly, this is just an example and the EPG may at other times require more memory or less memory. If less memory is required to store the EPG, then less memory is used by the STB to store the EPG, this operation is inherent in Hawkins.

However, even though the amount memory used by the STB to store a downloaded EPG changes according to the actual size of the EPG, it is not explicitly stated that this adjustment is in response to size information of the EPG transmitted from the headend. Nevertheless, Houha provides a disclosure of a user terminal receiving information regarding the size of code to be downloaded and allocating the amount of memory necessary, according the received size information; see Abstract; col. 2, lines 45-55; col. 6, lines 35-55. Houha is in the same field of endeavor as Hawkins, that of downloading application software to CATV terminals or a set-top box; see Houha, col. 1, lines 57-64 & col. 14, line 28. One of ordinary skill in the art at the time the invention was made, would have readily recognized the benefit of modifying Hawkins with the feature of adjusting the amount of memory allocated to store software downloads, according to size information transmitted from the headend to the user terminal, at least for the desirable

improvement of a more efficient process, which reduces the wasting of memory sources, as discussed by Houha, col. 1, lines 25-35; col. 2, lines 45-67 & col. 3, lines 1-12.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-22, 29-58, 65-76 & 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins, (U.S. Pat # 6,005,561), in view of Houha, (U.S. Pat # 5,734,822).

Considering claims 1, 37 & 73, the amended claimed interactive EPG system in which an interactive EPG is implemented on user equipment comprising, memory in the user equipment for storing the EPG is met by Hawkins, (col. 12, lines 25-35 & col. 18, lines 20-22). The claimed means for receiving information from a remote source on the amount of information for the interactive EPG to use to be stored reads on the table of media objects transmitted to the user terminal, see Fig. 5-6 & Fig. 8. The storage requirement for the EPG file is transmitted to the set top terminal. Hawkins discloses for instance in Fig. 8 that the EPG may require 12.1 MB of memory, also see col. 19, lines 25-45.

As for the claimed means for adjusting the amount of memory used by the interactive EPG guide to store the EPG in response to the received information, the amount of memory used to store a downloaded EPG is changed at least according to the actual size of the EPG. Each particular instance that the EPG is downloaded, may require a different memory allocation, and therefore the user terminal adjusts to store whatever amount of EPG is received, at least within the range of overall storage space that is available.

However Hawkins does not explicitly state that the memory allocation is based upon the size information transmitted from the headend, which describes the EPG to be downloaded. Nevertheless, Houha teaches that user terminal allocates the amount of memory to store downloaded software, in response to receiving size information from the headend, which characterizes the software to be downloaded, col. 2, lines 45-67; col. 7, lines 40-60 & col. 8, lines 17-25. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Hawkins to include allocating memory in response to size information received from a headend, with respect to software to be downloaded, at least for the desirable advantage of avoiding wasting large amounts of temporary storage space, as taught by Houha.

Considering claim 2, Hawkins teaches that the EPG data may include a variety of parameters, such as start time, duration description, category, rating, part sequence, etc., which reads on the claimed feature of storing different categories of the EPG data in memory. As for the additionally claimed feature of reallocating memory among the different categories of EPG

data when the amount of memory used to store the EPG data is adjusted, Houha discloses that the allocation of memory may be done with respect to modules of programming, which may be subparts of an application software or the entire application; see col. 4, lines 14-23; col. 9, lines 51-67 & col. 14, lines 31-35.

Considering claims 3 & 29, the claimed elements of an interactive TV program guide system that correspond with subject matter rejected above in claim 1, are likewise treated. As for the additional claimed feature of reallocating the memory based on information in a database, the claimed feature is met by the disclosure in Houha of allocating memory in response to size information transmitted from the headend, col. 2, lines 1-67 & col. 7, lines 39-67.

Considering claims 4, 30, 40 & 66, the claimed TV distribution facility reads on the headend of Hawkins, moreover Houha is discussed within a CATV system, col. 4, lines 48-50.

Considering claims 5-6 & 41-42 & 56, the memory requirements for user interface services other than EPG, such as VOD, PPV, Help & Tours, etc., reads on the claimed feature of determining memory requirements of a new non-EPG application.

Considering claims 7, 38 & 43, Houha teaches allocating memory based upon size information for specific modules of applications, thus it would have been obvious to track the amount of data available to be reallocated to additional resources to be downloaded.

Considering claims 8-11, 34-35, 44-47 & 70-71, the combination of Hawkins & Houha provides for downloading non-program guide applications. With respect to claim 8, see Houha, col. 2, lines 22-44, which teaches that configuration data concerning the user terminal may be transmitted to the user terminal from the headend.

Considering claims 12, 36, 48 & 72, Official Notice is taken that at the time the invention was made, it was known to discard EPG data according to its date. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to delete EPG data according to its date, thereby making more memory available for current EPG data.

Considering claims 13-15 & 49-51, Houha teaches transmitting configuration data to a user's CATV home terminal, col. 2, lines 22-44. The combination of Hawkins & Houha provides for sending the EPG data and configuration data separately.

Considering claims 16-17 & 52-53, both Hawkins & Houha include volatile & non-volatile memory areas for storing appropriate types of software applications.

Considering claims 18, 54, Official Notice is taken that at the time the invention was, using a default start-up configuration was known in the art, such as being loaded in a boot-routine. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to maintain a default start-up configuration, at least in the case that the power is lost by the CATV terminal and must be re-booted at some point.

Considering claims 19-20, 31-33, 58 & 67-69, again Houha teaches that memory may be allocated according to subparts of an application, which corresponds with categories of EPG, necessarily included in Hawkins. With respect to claim 20, both references discuss storing applications other than an EPG.

Considering claims 21-22, 39, 55, 57, 65, 74-76 & 78, the claimed elements of an interactive TV program guide system that correspond with subject matter rejected above in claims 1, 10 & 18, are likewise treated. As for the additional claimed feature of receiving information from a remote source defining a new memory configuration, and reconfiguring the memory to accommodate the EPG data according the new memory configuration, see Hawkins col. 19, lines 45-65 & Houha, col. 2, lines 22-44.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Coleman Teaches EPG data according to category.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:
(703) 872-9314, (for formal communications intended for entry)
Or:
(703) 872-9314 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399. The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown

VIVEK SRIVASTAVA
PRIMARY EXAMINER